

Architectural and Engineering Services For

The Claudia L. Workman Fish & Wildlife Education Center



Solicitation Number: CEOI 0310 DNR160000018

June 2, 2016

06/02/16 13:19:21
W Purchasing Division

Submitted to:
Division of Natural Resources
Forks of Coal Natural Area



Submitted by:
Michael Baker International, Inc.

Michael Baker
INTERNATIONAL

June 2, 2016

Mr. Guy Nisbet
West Virginia Department of Administration
Purchasing Division
2019 Washington Street, East
Charleston, West Virginia 25305

Subject: CEOI 0310 DNR1600000018
A/E for Claudia L. Workman Fish & Wildlife Education Center
Expression of Interest

Dear Mr. Nisbet:

The Charleston office of Michael Baker International, Inc. (Michael Baker) is pleased to respond to the subject Expression of Interest from the Division of Natural Resources for the Claudia L. Workman Fish & Wildlife Education Center. We understand that this facility is intended as an educational facility and visitor's center to focus on the preservation and management of our local fish, wildlife and other natural resources and natural history. We believe that our local team of professionals is uniquely qualified to provide a design that is both sensitive to the natural setting and progressive in its style.

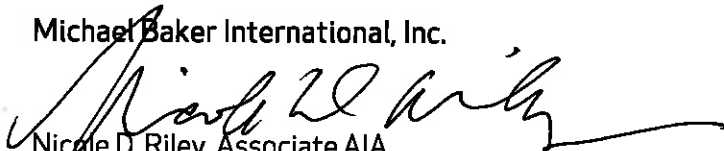
Michael Baker is well positioned to assemble a comprehensive design team (in-house) including: Architectural, Civil/Site, Mechanical, Plumbing and Structural expertise. Our diverse team of professionals are well versed in the preparation of construction documents, bid specifications, and the application of required construction permits. Michael Baker can also provide assistance during the Bidding process and the appropriate level of Construction Administration.

We thank you for your consideration and look forward to meeting with the selection committee in person in order to share our thoughts and ideas for this exciting opportunity!

Should you have any questions or require additional information, please feel free to contact me at (304) 769-2164 or by e-mail at Nicole.Riley@mbakerintl.com.

Very truly yours,

Michael Baker International, Inc.



Nicole D. Riley, Associate AIA
enclosure



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Centralized Expression of Interest
 02 — Architect/Engr

Proc Folder: 202118

Doc Description: A/E for Claudia L. Workman Fish & Wildlife Education Center

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2016-04-26	2016-06-02 13:30:00	CEOI 0310 DNR1600000018	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

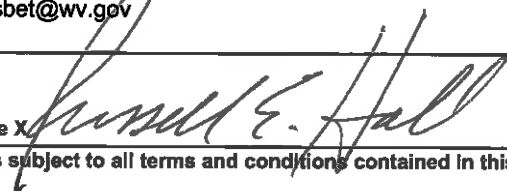
VENDOR

Vendor Name, Address and Telephone Number:

Michael Baker International, Inc.
100 Washington Street East, Suite 301
Charleston, West Virginia 25301
304.769.0821

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
 (304) 558-2596
 guy.l.nisbet@wv.gov

Signature X 

FEIN # **25-1228638**

DATE **June 2, 2016**

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Expression of Interest

The West Virginia Purchasing Division for the Agency, The West Virginia Division of Natural Resources (WVDNR), is soliciting responses from qualified firms to provide necessary engineering, architectural and other related professional services to design and provide construction contract administration services to construct an approximate 7,000 square foot education/visitors center in Alum Creek, WV., focused on the preservation and management of West Virginia fish, wildlife and other natural resources and other natural resources and natural history. per the attached specifications, and terms & conditions.

INVOICE TO		SHIP TO	
DIVISION OF NATURAL RESOURCES FORKS OF COAL NATURAL AREA 50 ROCKY BRANCH RD ALUM CREEK WV25003-9712 US		DIVISION OF NATURAL RESOURCES FORKS OF COAL NATURAL AREA 50 ROCKY BRANCH RD ALUM CREEK WV 25003-9712 US	

Line	Comm Ln Desc	Qty	Unit Issue
1	Architectural engineering		

Comm Code	Manufacturer	Specification	Model #
81101508			

Extended Description :

To provide necessary engineering, architectural and other related professional services to design and furnish as well as provide construction contract administration services to construct an approximate 7,000 square foot education/visitors center focused on the preservation and management of WV's fish, wildlife and other natural resources and natural history.

DNR1690000018	Document Phase Final	Document Description A/E for Claudia L. Workman Fish & Wildlife Education Center	Page 3 of 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Centralized Expression of Interest
 02 – Architect/Engr

Proc Folder: 202118

Doc Description: Addendum No.01; Workman Fish & Wildlife Education Center

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No	Version
2016-05-24	2016-06-02 13:30:00	CEOI 0310 DNR1600000018	2

BID RECEIVING LOCATION:

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR:

Vendor Name, Address and Telephone Number:

Michael Baker International, Inc.
100 Washington Street East, Suite 301
Charleston, West Virginia 25301
304.769.0821

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
 (304) 558-2596
 guy.l.nisbet@wv.gov

Signature X

FEIN # **25-1228638**

DATE **June 2, 2016**

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum

Addendum No.01; issued to publish and distribute the attached information to the Vendor community.

Expression of Interest

The West Virginia Purchasing Division for the Agency, The West Virginia Division of Natural Resources (WVDNR), is soliciting responses from qualified firms to provide necessary engineering, architectural and other related professional services to design and provide construction contract administration services to construct an approximate 7,000 square foot education/visitors center in Alum Creek, WV., focused on the preservation and management of West Virginia fish, wildlife and other natural resources and other natural resources and natural history. per the attached specifications, and terms & conditions.

INVOICE TO:	SHIP TO:
DIVISION OF NATURAL RESOURCES FORKS OF COAL NATURAL AREA 50 ROCKY BRANCH RD ALUM CREEK WV25003-9712 US	DIVISION OF NATURAL RESOURCES FORKS OF COAL NATURAL AREA 50 ROCKY BRANCH RD ALUM CREEK WV 25003-9712 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Architectural engineering	0.00000	

Comm Code	Manufacturer	Specification	Model #
31101508			

Extended Description :

Provide necessary engineering, architectural and other related professional services to design and furnish as well as provide construction contract administration services to construct an approximate 7,000 square foot education/visitors center focused on the preservation and management of WV's fish, wildlife and other natural resources and natural history.

SOLICITATION NUMBER: CEOI 0310 DNR1600000018

Addendum Number: No.01

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

Description of Modification to Solicitation:

Addendum issued to publish and distribute the attached documentation to the vendor community.

No other Changes.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

CEOI DNR16*18
A&E SVC's for Claudia L. Workman Fish and Wildlife Education Center
Vendor Questions and Agency Response
05/20/2016

Q.1 We are interested in sending a bid in for the West Virginia Fish and Wildlife Education Building design/engineering work. (Solicitation No CEOI 0310 DNR1600000018) We are not an architectural firm, but Civil Engineering is a service that we offer here at Blue Mountain, Inc. We do have on staff a Civil Engineer with Architectural background and experience. A commercial building that will be under 7,500 square foot, within the state of West Virginia, does not need to have an Architect's seal. Is this something that you require or will a Civil Engineer seal accommodate what you need?

A.1. The owner believes that despite the size limit contained in the question, professional expertise should be demonstrated as requested in accordance with Section Three, 2.1d of the EOI.

Q.2 Of the 7,000 sf education/visitors center, what portion of the space should be dedicated to the education center, the exhibitions, and programming spaces?

A.2 Approximately 3000 sqft of programing space is planned at this time. However, the program of the project will be developed further with the chosen firm.

Q.3 Do you envision any outdoor exhibits, signage, or interpretation as a part of the scope?

A.3 The development of the property; through construction of trails, signage, interpretation and other elements, is included in this project.

Q.4 Will the Workman family be providing all of the exhibit content?

A.4 No.

Q.5 How immersive do you envision the exhibits being (i.e., highly interactive or specimen and object-driven storylines)?

A.5 The scope of the project will be developed fully with the chosen firm. However, it is anticipated that exhibits included will be interactive as well as static.

Q.6 Is there an existing specimen/object/artifact list?

A.6 No.

Q.7 Will taxidermy be included in the scope of work?

A.7 It is the owners intention to include the exhibits in the design of the project. Any taxidermy specimens that may or may not be desired would be specified in the project.

Q.8 Will videography/video production services be included in the scope of work? (ie. an intro video)

A.8 The scope of the project will be developed fully with the chosen firm.

Q.9 Is the client able to provide budgetary information?

A.9 We are prohibited from the disclosure of Agency Budget.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CEOI 0310 DNR1600000018

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

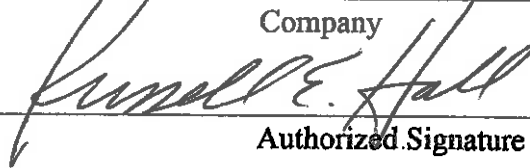
(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Michael Baker International, Inc.

Company



Authorized Signature

June 2, 2016

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

CERTIFICATION AND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Michael Baker International, Inc.

(Company)


 (Authorized Signature) (Representative Name, Title)

304.769.0821 Phone

(Phone Number) (Fax Number) (Date)

304.769.0822 Fax

June 2, 2016

CEOI 0310 DNR1600000018

STATE OF WEST VIRGINIA

Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Michael Baker International, Inc.

Authorized Signature: [Signature] Date: June 2, 2016

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 2nd day of June, 2016.

My Commission expires April 14th, 2023.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]
Purchasing Affidavit (Revised 08/01/2015)

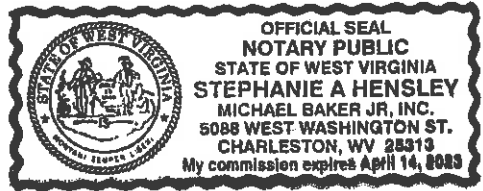




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PROJECT LOCATIONS

The West Virginia Division of Natural Resources Headquarters is located at 324 4th Avenue, South Charleston, West Virginia.

The approximately 102 acre property for the proposed development is shown below and is located at:
The Forks of the Coal State Natural Area, 50 Rocky Branch Road, Alum Creek, West Virginia 25003.



PROJECT BACKGROUND

West Virginia Department of Administration is seeking a highly qualified architectural/engineering firm to provide comprehensive design services and bid documents for a project with the West Virginia State Division of Natural Resources (WV DNR). The firm will be responsible for Concept proposals, Design Development and Construction Documents, as well as Construction Administration as specified in the Expression of Interest (EOI).

It is the WV DNR's desire to preserve a portion of West Virginia's natural habitat, as well as exhibit examples of our natural and industrial history and to continue the legacy of wildlife education with a forward thinking living experience for both residents and guests of our state.



QUALIFICATIONS & EXPERIENCE

FIRM/TEAM QUALIFICATIONS

Michael Baker International, Inc. (Michael Baker) is a highly qualified firm with extensive experience in providing the type of services required for this project. Baker seeks to provide the necessary Architectural, Engineering and other professional services to design and provide construction administration in order to build an approximately 7,000 square foot education / visitors center focused on the preservation and management of West Virginia's fish and wildlife and other natural resources and natural history. Michael Baker is also poised to provide design and specifications for all exhibit construction and furnishings.

From the humble beginnings in roadway development to the design of the New River Gorge Bridge and beyond, Michael Baker International wishes to continue its relationship with the State of West Virginia.

Michael Baker's proposed team of experienced professionals has demonstrated the ability to deliver quality work products to our clients, on-time and within budget. Michael Baker can provide the entire depth of services necessary to complete the project without the need for costly sub-consultants. Each individual on this project team has extensive experience in their field of expertise and have demonstrated success on projects of similar size and scope.

The Principal-In-Charge will ensure that all required resources including staff and equipment are available to the project manager to execute the project successfully. Team resumes and project profiles provide a brief discussion of team member's experience base relevant to this project.

Management and Staffing

Russell Hall, Vice President | 400 Washington Street East, Suite 301, Charleston WV 25301 | 304-769-0821 | RHall@mbakerintl.com

Persons Assigned to the Project (Resumes Provided In Appendix 1)

NAME	ROLE
PATRICK FOGARTY, P.E., P.S.	Civil Engineer / Group Manager
JOE CHAFFIN, NCARB	Architect
NICOLE RILEY	Designer / Project Manager
DAVID HILLIARD, P.E., LEED AP BD+C	Mechanical Engineer
LAURA COX, L.A., LEED GREEN ASSOCIATE	Landscape Architect
NATALIE HARMON, NCIDQ, LEED AP BD+C	Interior Designer
OWEN MILLIGAN, P.E.	Electrical Engineer
WAYNE AIRGOOD, P.E.	Structural Engineer
JOHN LASKO, P.G.	Geotechnical Engineer
STEVE FRAZER, P.S.	Surveyor



According to our understanding of the project scope as stated in the EOI, no additional sub-consultants will be required with the exception of drilling and soil testing as required.

Michael Baker will execute the entire project design and construction oversight with our local staff.

FIRM CAPACITY

Michael Baker is a full service Architectural /Engineering firm. Our local office in Charleston WV is a "single-stop resource" capable of providing comprehensive professional services, from Architecture and Planning to Mechanical/Electrical and Structural Engineering to construction management through operational support. Michael Baker will provide the hands on services needed for this project, from Client meetings to site surveys, design and construction administration/inspection.

With over 30 in house professionals locally and 6,000 nationally, Michael Baker prides itself on a legacy of returning clientele. Some of these local clients, whose projects encompass facilities development and renovation include, but are not limited to; the West Virginia Department of Transportation, General Services Division, West Virginia Air and Army National Guard, West Virginia University, West Virginia State University, the cities of Nitro, Dunbar, Winfield,, and many others. Numerous private sector clients fill out a broad resume of satisfied clientele. Michael Baker's central geographic location in the State Capitol and depth of experience nationally enables us to respond quickly to wide-ranging scopes of service in order to meet needs of the West Virginia Department of Natural Resources.

Nationally, Michael Baker, is a leading global provider of engineering and consulting services which includes planning, architectural, environmental, construction, program management, and full life cycle support services as well as information technology and communications services and solutions. Michael Baker provides its comprehensive range of services and solutions in support of U.S. federal, state, and municipal governments, foreign allied governments, and a wide range of commercial clients. With more than \$1.3 billion in annual revenue, Michael Baker has more than 6,000 employees in over 90 offices located across the U.S. and internationally. Michael Baker seamlessly integrates architecture, planning, landscape architecture, engineering and management. Internationally recognized with a portfolio spanning over half a century, the team provides excellence in solutions: superior technical ability, creative design and collaborative integration.

The success of our multidisciplinary approach to built environments results from the expertise of our design professionals. We solve challenges from multiple vantage points providing unsurpassed holistic, sustainable and innovative solutions that benefit our diverse clients, including institutions, governmental agencies, corporations, developers and builders.

Michael Baker has extensive resources and the required qualifications to provide architectural, engineering and interior design services for the WV DNR on this important project. We have local and nationally recognized experts with the technical experience necessary for this assignment. In addition, Michael Baker's team of experienced professionals have an established record of delivering quality work products to our clients, on schedule and within budget.

In summary, Michael Baker's staff can provide documentation of our extensive experience in the following areas for this project:

- Nationally recognized expertise in Assessing, Programming and Planning
- Innovative Architectural concepts and designs
- Facilities Engineering (Civil, Mechanical, Fire Protection, Plumbing and Electrical)
- Construction Administration and Construction Monitoring
- Coordination with State and Federal Agencies, as required

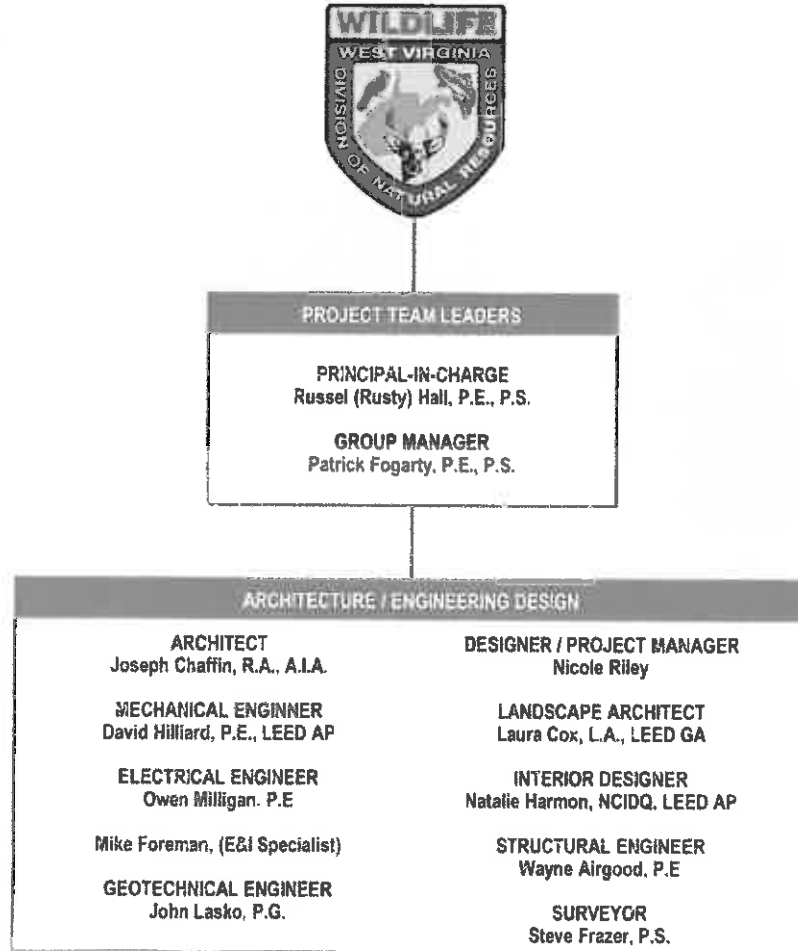
From small projects to major new or renovated building facilities, infrastructure and aviation, to oil and gas pipeline design, bridges and roadway designs, and water resource projects, Michael Baker has evolved into one of the leading engineering and energy services firms by consistently providing targeted solutions for its clients most complex challenges.



STATEMENT OF FIRM'S ACCEPTANCE AND FULL UNDERSTANDING THAT ANY AND ALL WORK PRODUCED AS A RESULT OF THE CONTRACT WILL BECOME PROPERTY OF THE AGENCY AND CAN BE USED OR SHARED BY THE AGENCY AS DEEMED APPROPRIATE

Michael Baker will provide to the WV DNR or other appropriate agencies, electronic copies of all required submittals through the various design stages and will provide final AutoCAD drawings at the completion of the project if requested.

PROJECT ORGANIZATION



STATEMENT OR EVIDENCE OF THE FIRM OR TEAM'S ABILITY TO PROVIDE SERVICES

This team was selected based on the current Project understanding. Additional team support members will be engaged on an as needed basis.

See Resumes for more details on team members in **Appendix 1**.

DEMONSTRATED EXPERIENCE IN COMPLETING PROJECTS OF A SIMILAR SIZE AND SCOPE

Project Profiles are included in **Appendix 2**. They were selected as a representative group of various kinds of related projects. These include local projects in the State of West Virginia, and other relevant projects around the country.

Seven (7) References are provided in **Appendix 3**.

PROJECT AND GOALS

METHODOLOGY FOR MEETING GOALS AND OBJECTIVES - GENERAL

GOAL/OBJECTIVE 1:

It is Michael Baker International's understanding that the West Virginia Department of Natural Resources would like a functional, yet state of the art, facility to educate the general public about West Virginia's wild life, natural environment and historic treasures. The approach of the entire project would be holistic in nature, taking into account the natural environment and the public's desire to experience it. Frequent and affective communication with the stake holders is critical to the successful of this project. To this end, a kick off meeting would be held to help understand and to discuss the WV DNR's project requirements. Some of the first steps of the project would be to prioritize tasks, develop submission schedules and budget requirements for the project. Any existing / available information would be gathered and reviewed prior to a visit to the property and proposed project site. If

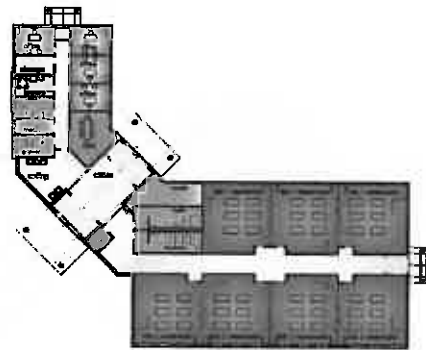
warranted, a topographical survey of existing site conditions would be developed, as well as subsurface investigation to analyze the existing geology for design development. The project will be studied in a systematic way to analyze the existing conditions, client needs and budget considerations. The design team will then begin working on building concepts as required to provide the design for the most cost effective system to achieve the project requirements.

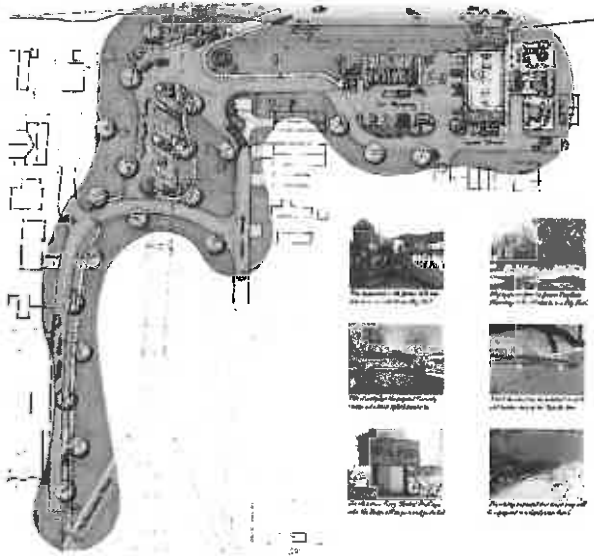
Based on the outcome of the previous steps, the Michael Baker International staff will develop schematic design concepts and preliminary cost opinions for review by the WV DNR. Analyzing multiple solutions provides the client the ability to choose the most cost effective approach for the project, therefore a minimum of two potential concept possibilities will be presented.

Baker will provide cost estimating services. When the different options pertaining to the project are identified from a technical standpoint, the team would be engaged to provide the financial feasibility of each option.

GOAL/OBJECTIVE 2:

Upon selection of a concept from the Client, a general code review would be undertaken to determine state and local codes that would affect concept selection. The concept will be tested against the Client's Project Requirements before moving into design development. Michael Baker International is capable of providing a variety of services with extensive experience in many fields of expertise, this allows the core team members access to expertise in all areas of study.





A survey team will be responsible for identifying existing site conditions, topography and locating utilities and other components in the project area. This team will consist of Baker employees which are Licensed Professional Surveyors and Registered Professional Engineers. Drawings and documentation will be provided based on the site survey. This documentation will include the location of affected existing on-site utilities or service lines. Design documents will also include information regarding the limitations and requirements for any needed project demolition.

Michael Baker International; Architects and Engineers will be involved in all aspects of the existing condition assessment and project design. Depending on the task this may include: Site/Civil, Architectural, Interior Design, Structural, Mechanical, Electrical, Plumbing, and Fire Protection engineering. The Architect / Engineer designer of record will provide final sealed drawings and specifications for each portion of the project.

Various aspects of the design might include:

- An environmental education center with a unique building style and arrangement
- Nature and outdoor life exhibits with live animals and education opportunities for children and families
- Walkways, pathways and trail system with Interpretive signage and guides for the Natural Area describing the flora, fauna and the natural and historical features of the area, including the unique historical association with the Coal River Lock System
- Parking with outdoor lighting
- Facility entrance sign and site landscape fetchers
- Site utilities

Michael Baker International will provide all necessary design and bidding documents for construction in accordance with West Virginia Purchasing Division for all aspects of the design. Specifications for the installation of all required products or components will be provided as part of the bid package.



GOAL/OBJECTIVE 3:

Michael Baker International will provide Construction Administration throughout the entire process of Bidding, Construction and Commissioning. The same team members that began the project will follow through to the end. All products intended to be installed on the project shall be submitted to and approved by the A/E of record. Shop drawings provided by the awarded contractor will be reviewed by the A/E of record to ensure they meet all code requirements, specification criteria and are appropriate for the project. The products will be approved based on meeting the prepared specifications, current code requirements and contract requirements.

After the system installations are complete, Baker will perform a final inspection and develop a corrective measure punch list. Michael Baker International will also provide the Department of Natural Resources ongoing support through the manufacturer's warranty period after the construction is completed. It is Michael Baker's desire to provide a successful design, but also a comfortable and functional structure in reality.



APPENDIX 1 – Resumes

Russell E. Hall, P.E., P.S.

Assistant Vice President and Charleston Office Manager

General Qualifications

Mr. Hall currently serves as an Assistant Vice President of Michael Baker International as well as Office Manager of our Charleston, WV office. He is an experienced transportation engineer who has been involved in numerous bridge and highway design projects in West Virginia for over 28 years. His project management responsibilities involve overseeing staff from project inception through completion, and ensuring that the clients' needs and requirements are met.

He also has over nine years of office management experience. His office management responsibilities include financial oversight and accountability for a staff of over 40 engineers, scientists, and administrative personnel for Baker's Charleston office. His major strengths include organizing and managing a project team, quality control and quality assurance, and problem resolution. He provides overall direction and maintains direct communications with all clients. Mr. Hall is very proud of the fact that he has been able to spend his entire career in West Virginia working to address West Virginia's transportation needs.

Experience

Kanawha River Bridge, Charleston, West Virginia. *Brayman Construction Company.* Principal-In-Charge. Responsible for oversight of Project Management. Baker's Charleston, West Virginia office redesigned seven piers for the contractor and performed a complete analysis of the superstructure and substructure to properly size the piers.

US 35/I-64 Interchange Post Design, West Virginia. *West Virginia Department of Transportation, Division of Highways.* Principal-In-Charge. The design phase of this project provided for the preparation of construction and right of way plans for approximately three miles of 4-lane divided highway. The construction plans were separated into three construction contracts and included the design of two interchanges, two bridges, numerous box culverts and a vehicular underpass. The post design phase of this project provided for the review and approval of shop drawings and responding to Requests for Information. Baker designed the original post-tensioned concrete box bridge. Contractor value engineered the superstructure to a steel girder bridge. Foundation for piers and abutments were as designed. Baker reviewed pile testing, mass concrete results, and MSE wall calculations provided by the contractor.

Fort Pleasant Access Road Project, Moorefield, West Virginia. *Fort Pleasant Farms, Inc.* Principal-In-Charge. Responsible for oversight of project finances, schedules and quality control. Baker prepared contract construction plans and related documents for a 3-lane access road connecting Corridor H to private property in Moorefield, WV.

Years with Michael Baker: 10

Years with Other Firms: 18

Degrees

B.S., 1985, Civil Engineering, West Virginia University Institute of Technology

Licenses/Certifications

Professional Engineer - Civil/Structural, West Virginia, 1990

Professional Surveyor, West Virginia, 1995

WVDOH Six-Year Bridge Inspection Program, Various Locations, West Virginia. *West Virginia Department of Transportation, Division of Highways.* Principal-In-Charge. Responsible for oversight of project finances, schedules and quality control. Baker was responsible for performing the inspection services and report writing for the New River Gorge Bridge, Veteran's Memorial Bridge, Fort Hill Bridge, Fort Henry Bridge and Wheeling Tunnels.

Fort Pleasant Farms Two Lane Road Design, Moorefield. *Fort Pleasant Farms, Inc.* Principal-In-Charge. Responsible for oversight of project finances, schedules and quality control. This project involved the study, design and final construction plan development for a new two-lane access road approximately 1500' in length. This access road was designed to connect a commercial/residential development to the Moorefield Interchange on Corridor H in Moorefield, West Virginia.

Town of Moorefield-Maple Avenue Streetscape, Moorefield. *Town of Moorefield.* Principal-In-Charge. Responsible for oversight of Project Management. The Town of Moorefield was in need of a pedestrian-friendly way of connecting the downtown area with the highly utilized nearby community park. Maple Avenue was a secondary street connecting the two areas, but had no sidewalks and deep ditches along most of the corridor. Moorefield tasked Baker with the planning and design of improvements that would both upgrade existing facilities and create a unified community linking the downtown with the community park.

Blennerhassett Island Bridge, Appalachian Corridor D, Washington County, Ohio and Wood County, West Virginia. *West Virginia Department of Transportation, Division of Highways.* Principal-In-Charge. Responsible for oversight of project finances, schedules and quality control. The 878' – 6" long network tied arch was ranked as the longest of its type in the United States and one of the longest in the entire world. Baker provided project management, environmental and location studies, permitting, preliminary and final design as well as construction phase services.

Town of West Milford Sidewalk Improvements, West Milford, West Virginia. *Town of West Milford.* Principal-In-Charge. Responsible for oversight of Project Management. Baker performed complete planning, design and construction management services for new sidewalks along U.S. Route 270 (Main Street) for the Town of West Milford. The improvements included concrete sidewalks with integral concrete curbs, driveway curb cuts, ADA accessible curb ramps with truncated domes, "ladder-style" crosswalks and storm drainage design. Baker provided Construction Administration and resident inspection services as well as periodic site review during construction.

City of Charleston Bridges-Engineering Consulting Services, Charleston, West Virginia. *City of Charleston, West Virginia.* Principal-In-Charge. Responsible for oversight of Project Management. Baker's Charleston, West Virginia office provided various services for the City of Charleston. Baker reviewed existing inspection reports, performed bridge inspections and recommended and prioritized repairs for 13 bridges owned by the city. Kanawha-Putnam Bike/Pedestrian Plan, Phase I, South Charleston. Regional Intergovernmental Council. Principal-In-Charge. Responsible for oversight of Project Management. Baker performed a cursory inventory of existing bicycle and pedestrian facilities, identified areas with a high level of bicycle and pedestrian activity, collected existing resources and performed a broad base public outreach effort to identify bicycle and pedestrian issues in Kanawha and Putnam Counties for the Regional Intergovernmental Council (RIC). All data, survey results and preliminary findings were compiled for analysis and incorporation into the final plan during Phase II of the study.

Patrick W. Fogarty, P.E., P.S., LEED®GA

Civil Engineer , Facilities Practice Manager

General Qualifications

Mr. Fogarty has over 29 years of civil engineering project design and management experience. He is responsible for the technical and management aspects of civil design and surveying projects within Baker's Charleston, West Virginia office. Mr. Fogarty has designed and managed projects in numerous disciplines including civil, structural, and transportation engineering; site development planning; and surveying. These projects have included retail/commercial site preparation, airports, streets/highways, bridges, parking lots, buildings, retaining walls/foundations, sanitary systems and structures, as well as boundary and topographic and photogrammetric surveys. Duties included field surveying, drawings and specification preparation, design, design drafting, construction inspection, quality control testing, shop drawing review, project management, contract administration and report preparation.

Experience

West Virginia State Capitol Restroom Renovations. *State of WV General Services Division.* Project Manager. Responsible for the overall management of the project including the coordination of the subconsultant. Baker is leading a planning study for the renovation of 31 restrooms in the historic West Virginia Capitol Building. The planning study will assess the facilities and their conformance to current code requirements and code-required capacities, compliance with Americans with Disabilities Act (ADA) requirements, quantification of the building occupancy during normal and peak periods, and an evaluation of gender distribution of restrooms within the capitol. Baker will provide design, construction sequence, and scheduling recommendations. Upon approval of the design, Baker will prepare construction documents and provide construction administration services for the renovation of three restrooms on the basement level.

Nitro Bank Street Streetscape Improvements, Nitro, West Virginia. *City of Nitro.* Project Manager. Responsible for concept planning, detailed design, construction document generation, and construction administration. Baker provided design, bid-phase support, and construction services for streetscape improvements to Bank Street, located in the city's business district. Baker's services include base mapping, background data collection, design plans, construction document preparation, bid-phase support, construction management, and construction inspection.

*Years with Michael Baker: 10
Years with Other Firms: 20*

Degrees

B.S., 1985, Civil Engineering, West Virginia University Institute of Technology

Diploma, 1993, Surveying and Mapping, International Correspondence Schools

Coursework, Business Administration, Heriot-Watt University, Edinburgh College of Art

Licenses/Certifications

Professional Engineer - Civil/Structural, West Virginia, 1990
Professional Surveyor, West Virginia, 1993

Construction Documents Technologist, 1996

A/E Services for the Office of the Adjutant General, West Virginia Army National Guard, Division of Engineering and Facilities, Charleston, West Virginia. *State Army National Guard Headquarters.* Project Manager. Responsible for the management and coordination of all activities. The Facilities Management Officer (FMO) for the State of West Virginia, Division of Engineering and Facilities (DEF), West Virginia Army National Guard (WVARNG) selected Baker for a lump sum/fixed fee contract for architectural and engineering services. Baker was selected by the Division of Engineering and Facilities to provide complete design and construction administration services for the renovation of the first floor of the entire wing of the Office of the Adjutant General (TAG). The Owner requested the need for modernization of approximately 12,000 square feet of existing outdated office space - project elements included new acoustical ceilings, flooring, energy-saving light fixtures, duplex outlets, communications jacks, alterations to the existing floor plan, exterior door replacements, new interior doors and hardware, new wall finishes and asbestos removal.

Lost Creek Train Depot Rehabilitation, Lost Creek, West Virginia. *Town of Lost Creek.* Project Manager. Responsible for the management and coordination of all activities as well as all engineering design. The Town of Lost Creek retained Baker for the planning and design of the rehabilitation of a historic train depot adjacent to the Harrison County Rail Trail. Baker prepared a plan to raise the structure, make repairs to the deteriorated timber, excavate and place the concrete foundation system, then lower the structure to rest on the new foundation. Baker provided construction administration and inspection services as well as periodic site review during construction.

Little Kanawha Bus Facility, Calhoun County, West Virginia. *WV Division Of Public Transit.* Project Manager. Responsible for the civil, site and structural engineering components of the project. Baker is providing architectural and engineering services, landscape architecture, and construction-phase support for a new, 9,900-square foot, pre-engineered, metal and brick bus maintenance and transit operations facility. The 5,100-square-foot administrative area will include offices, a conference room, a money-counting room, and a driver-training room, and the 4,800-square-foot bus maintenance area will include storage for seven buses. The facility will be ADA-compliant and is being designed to achieve LEED® certification. Services include site survey and design, geotechnical testing, environmental compliance, utility coordination, bid documents, bid-phase support, and as-built drawings.

West Virginia Army National Guard - TAG Wing Improvement, Charleston, West Virginia. *State Army National Guard Headquarters.* Project Manager. Engineer of Record responsible for the coordination of all activities. Baker performed complete planning, design, and construction management services for renovations to the Office of the Adjutant General at the State Army National Guard Headquarters in Charleston, West Virginia. Project elements included new acoustical ceilings, flooring, energy-saving light fixtures, duplex outlets, communications jacks, several new wall partitions, exterior door replacements, new interior doors and hardware, new wall finishes and asbestos removal. Baker provided Construction Administration and inspection services as well as periodic site review during construction.

R. Joseph Chaffin, R.A., A.I.A.

Lead Design Architect

General Qualifications

In balancing creative, organizational, and technical strengths, Joseph Chaffin's professional experience demonstrates a broad practice of architecture from residential through complex institutional projects. He challenges current capabilities, cultivates leadership, and develops new strengths through his position at Baker. As Director of Architecture, Mr. Chaffin is responsible for the daily operations, design quality, and project execution of the architectural and interior design staff. He performs interdisciplinary technical reviews for all designs and oversees coordination of related engineering disciplines. Ensuring the highest quality design services within budget and schedule parameters, he also emphasizes a "world view," or comprehensive perspective, within which professional services are delivered prioritizing and maintaining client expectations.

Experience

Building 12 Defense Logistics Agency Headquarters Renovation Design, Tobyhanna, Pennsylvania. *Tobyhanna Army Depot.* Director. Responsible for design/technical quality and project execution provided by the architectural and interior design staff. Role also included interdisciplinary technical reviews for all design/construction documents. Baker prepared design documents for the partial renovation of Building 12 to serve as the new Defense Logistics Agency headquarters building. Work was performed under a three-year indefinite delivery-indefinite quantity contract. Baker's tasks included architectural design, building systems engineering, construction cost estimate development, and as-built plans development.

Restroom Renovation Design, TISCOM, Alexandria, Virginia. *U.S. Coast Guard, CEU Cleveland.* Director. Responsible for design/technical quality and project execution provided by the architectural and interior design staff. Role also included interdisciplinary technical reviews for all design/construction documents. Baker is developing specifications, construction drawings, a detailed cost estimate, and a projected construction schedule to renovate two male and two female restroom areas in the Telecommunication and Information Systems Command Navigation Center. The renovated restrooms will be compliant with the Americans with Disabilities Act and will include new plumbing fixtures, toilet partitions, floor coverings, wall coverings, electrical fixtures, and exhaust fans.

U.S. Armed Forces Reserve Center, Rutland, Vermont. *U.S. Army Corps of Engineers, Louisville District.* Director. Responsible for design/technical quality and project execution provided by the architectural and interior design staff. Responsibilities also included detailed interdisciplinary reviews of the RFP design criteria documents with an emphasis on architecture. Baker developed design-build RFP documents for a new 600-member Armed Forces Reserve Center meeting Silver LEED® standards. A 97,634-square-foot training building (AFRC), a 14,600-square-foot multi-use classroom, a 7,302-square-foot Organized Maintenance Shop (OMS), and a 3,113-square-foot unheated storage (UHS) building were included in the RFP package. The center accommodates training and mobilization, and provides for the storage, inspection, maintenance, and repair of combat and tactical vehicles and equipment.

Years with Baker: 7

Years with Other Firms: 17

Education

B Arch., 1990, Architecture, University of Cincinnati

Certificate, 1988, Architecture, Ecole d'Art Americaines - Ecole des Beaux Arts

Licenses/Certifications

Registered Architect, West Virginia, 2011

NCARB, 1999

Registered Architect, Pennsylvania, 2001

associated with the regional deployment of Vermont Army National Guard and Army Reserve units. RFP development consisted of conducting a design charrette; providing a topographical survey and geotechnical investigation; performing a utility survey; developing conceptual site plans, floor plans, and building elevations; developing RFP specifications; preparing DD Form 1354 – Transfer of Real Property; and providing a PACES construction cost estimate.

General Architect and Engineering Services Contract, U.S. and its Territories. *U.S. Coast Guard, CEU Cleveland.* Director. Responsible for design/technical quality and project execution provided by the architectural and interior design staff. Role also included interdisciplinary technical reviews for all design/construction documents. Baker is providing services under a U.S. Department of Homeland Security \$50 million, 10-year indefinite delivery-indefinite quantity general architect and engineering contract for work at U.S. Coast Guard facilities within the 50 U.S. states and territories. The scope of the contract includes modifications and renovations to existing structures as well as new construction. Facility types and applications include space planning, light commercial buildings and their mechanical and electrical systems, site utilities, waterfront facilities, dredging, structural inspections, and runways.

Design of U.S. Army Reserve Center Renovation and Expansion, Homewood, Illinois. *U.S. Army Corps of Engineers, Louisville District.* Director. Responsible for design/technical quality and project execution provided by the architectural and interior design staff. Role also included interdisciplinary technical reviews for all design/construction documents. As designer of record, Baker provided architectural and engineering services for the renovation and expansion of a 400-member U.S. Army Reserve Center to provide a 60,374-square-foot Training Building, including an approximately 3,500-square-foot Unheated Storage Building. The project also includes construction of a 22,300-square-foot parking area for military equipment, and 130 parking spaces for privately owned vehicles. Tasks were performed under an indefinite quantity-indefinite delivery engineering agreement. Baker designed the training facility to meet LEED® Silver certification. Baker's services included architectural design, surveys, environmental and geotechnical investigation, all site and building engineering, cost estimating, value engineering, and LEED® certification administration.

Unit Operations Facilities, SATOC TO #4, Fort Bliss, El Paso, Texas. *U.S. Army Corps of Engineers, Tulsa District.* Director. Responsible for design/technical quality and project execution provided by the architectural and interior design staff. Role also included interdisciplinary technical reviews for all design/construction documents. Projects constructed under this task order include Brigade Combat Team (BCT) Tactical Equipment Maintenance Facilities (TEMF). TEMFs provide facilities for the purpose of maintaining and repairing vehicles, complete with equipment and parts storage, and administrative offices. Task Order No. 0004 was for the design-build delivery of a medium-sized, 32,290-square-foot TEMF, a 6,300-square-foot Organizational (Deployment) Storage facility, a 540-square-foot oil storage facility, and a 540-square-foot building for hazardous materials storage. Facility designs are required to meet or exceed a Silver LEED® certification.

Blennerhassett Island Bridge, Appalachian Corridor D, Washington County, Ohio, and Wood County, West Virginia. *West Virginia Department of Transportation, Division of Highways.* Architect. Responsible for the design of a conceptual tower/beacon woven into the proposed bridge span over the Ohio River at historic Blennerhassett Island. Baker provided engineering services for the Blennerhassett Island Bridge; the "missing link" final segment of Appalachian Highway Corridor D. Baker's services included project management, environmental engineering and location studies, permitting, preliminary and final design, and construction services for this network tied-arch bridge that carries U.S. 50 over the Ohio River. The bridge is 100 feet, six inches wide, and the total length of the structure is 4,008 feet, nine inches. It has an 878-foot, six-inch-long main span with a rise of 175 feet.

Nicole Riley

Associate Architect / Project Manager

General Qualifications

Ms. Riley brings more than 17 years of design and project coordination experience to the project. While at Baker, Ms. Riley has focused most of her time on design and coordination with the client while maintaining a close relationship with the design team, from the early assessment of project planning stages to the construction administration. Ms. Riley's project design experience includes facilities for entrepreneurs, correctional, educational, institutional, military installations, commercial, residential, and religious facilities. She is experienced with the submittal and construction process for various state agencies including the WV State Fire Marshal and West Virginia State Police.

Experience

Multi- Purpose Facility for the West Virginia State Police Academy, Institute, West Virginia Designer and Project Manager. Responsibilities included site investigation, cost estimate, architectural design and collaboration with geotechnical engineer as well as the West Virginia State Police staff overseeing the project. The facility employs a skylight system in the main gym, intended to provide natural light to the user as well as lowering electricity expense. Special consideration was given to the underground foundation and location of the facility at the Academy.

Parkersburg South High School, Parkersburg, West Virginia. Wood County Schools, Designer and Project Manager. Responsibilities included complete design package and collaboration with staffs from both the state and federal entities for the 192,000 S.F. facility. Special consideration given to student security, geotechnical challenges, campus enclosure, music and chorale practice suites, laboratory spaces, and fire suppression and protection system.

Economic Development Center, Charleston, West Virginia. West Virginia State University Gus R. Douglass Extension, Designer and Project Manager. Responsibilities included: feasibility study, budget development and construction documents and construction administration services for total renovation of a 5,000 S.F. facility. Diverse use of facility lent to consideration for recording studios, digital green studio, office space for entrepreneurs, and public gathering space.

Years with Baker: 1

Years with Other Firms: 16

Education

Bachelor of Architecture, Virginia Tech

Licenses/Certifications

Associate A.I.A.

Laura Cox, PLA, ASLA, LEED Green Associate Landscape Architect/Planner

General Qualifications

Ms. Cox is a Registered Landscape Architect with over 30 years of experience in the fields of landscape architecture and land planning. She has knowledge of all phases of design from site analysis and conceptual planning through construction documentation, permitting and administration. Her design experience includes large scale site preparation and grading, drainage analysis, storm water conveyance and detention, and utility and infrastructure design.

Ms. Cox has an extensive background in site and land use planning for counties and municipalities including, feasibility studies, review and evaluation of preliminary and final subdivision plans, special exceptions, rezoning applications, yield studies, special use permits and client representation at public hearings and meetings with civic groups.

Experience

Technical Assistance to Caroline County for Implementation of UDA Requirements. *Virginia Department of Transportation.* Project Planner.

Assisted with conducting or reviewing all aspects of technical analysis to develop Comprehensive Plan, Zoning and Subdivision Ordinance revisions to bring the County into compliance with the Urban Development Area requirements. Baker was also responsible for completing technical memo outlining the transportation demand reductions the UDA developments will bring to the County and VDOT

Marshall University 2012 Master Plan. Michael Baker Jr. Incorporated is currently involved with Smith Group JJR and a team of specialized firms to provide a comprehensive Campus Master Plan for Marshall University. The Master Plan will provide a framework for long- and short-term planning that is clear and flexible – responding to changing needs and conditions as the University continues to evolve. Ms. Cox is part of the Baker Team which is working on various portions of the plan including: Transportation Planning, Existing Building Assessment, Utility Infrastructure, Community Involvement and Site / Civil Support. The Master Plan is scheduled for completion in December of 2013.

KYOVA Long Range Transportation Plan. Laura worked with the Baker team on area wide land use topology and growth pattern documents for the plan update. She also participated in a design charrette held in Huntington where various redevelopment and streetscape improvement scenarios including such criteria as ADA compliance were explored as well as methodologies to accommodate the needs of the City of Huntington and Marshall University.

Years with Baker: 8

Years with Other Firms: 27

Education

B.S., 1978, Landscape Architecture, West Virginia University

Certificate, 1995, Computer Aided Drafting, Putnam County Technical Center

Licenses/Certifications

Landscape Architect, Virginia, 1987

NICET III Transportation-Highway Construction, West Virginia, 1983

Registered Landscape Architect, West Virginia, 2008

Licensed Landscape Architect, New Jersey, 2010

WV AIA Livable Communities Committee. Laura currently serves as the chairman of this community which assists West Virginia communities to realize their dreams of downtown revitalization by beginning the process of identifying their needs and assessing design possibilities. They are currently working on a plan for an overlay district in Parkersburg. Streetscape improvement recommendations will include creation of ADA compliant crosswalks and curb ramps.

West Virginia Capitol Complex Master Plan, Charleston, West Virginia. *WV Department of Administration.* Project Planner, Ms. Cox assisted in providing the State of West Virginia General Services Division a comprehensive campus-wide master plan for the 55+ acre state capitol campus. Ms. Cox was part of the Baker Team which worked in conjunction with the owner and a team of specialized consultants providing planning elements including master planning, public involvement, document management, facilities planning, and document preparation. Ms. Cox also performed a campus level ADA Compliance report with recommendations on necessary upgrades.

Parsons City-Wide Comprehensive Parks and Recreation Master Plan, Parsons, West Virginia. *Parsons Park Board, Inc.* Landscape Architect. Assisted in the plan preparation and public outreach for this project. Baker prepared a Master Plan of improvements and recommendations for existing and proposed parks and recreation amenities for the City of Parsons, WV. The City, over time, had acquired many parcels of FEMA-condemned properties due to the flood-prone topography of Parsons; in an effort to properly manage existing facilities, yet prepare for the future of the additional facilities scattered throughout the community, this master planning effort was begun. Through a series of public meetings and stakeholder meetings, a final plan was developed with recommendations for ball fields, hiking and biking trails, recreation center, miniature golf course, play structures, picnic facilities, ADA-compliant fishing access, interpretive signage, and landscaping improvements for existing and new park areas.

Ararat River Restoration, Greenway, and Parks Project, Mount Airy, North Carolina. *City of Mount Airy, North Carolina.* Landscape Architect. Assisted in the preparation of construction documents and provided construction administration and construction inspection for three (3) parks along the Ararat River in North Carolina. Baker prepared construction documents and construction administration and inspection services for three parks along the Ararat River in North Carolina: the first park, Riverside Park, includes basketball courts, playground structures, parking areas, a premier soccer field, picnic shelters, nature trails, canoe launch facility, restrooms, fencing, signage and landscaping. Rowe Environmental Park will showcase environmental issues in the park design and construction including an outdoor amphitheater/classroom, picnic facilities, nature trails, parking area, pedestrian bridge to nearby middle school, fishing access and canoe launch facility. The final park, Tharrington Park, includes a premier soccer field, additional soccer fields to create a soccer complex, access road and parking, fitness trail, restroom facility, concessions, and maintenance building.

US 33 Streetscape Improvement Project - Phase II, Mason, West Virginia. *Town of Mason.* Landscape Architect. Assisted in the preparation of construction documents. Baker performed complete detailed design, construction document preparation and construction management services for new sidewalks and storm sewer improvements the Mason Phase II Streetscape Project. The improvements included concrete sidewalks with integral concrete curbs, driveway curb cuts, ADA accessible curb ramps with truncated domes, ladder-style crosswalks, storm sewer improvements, benches and trash receptacles. Baker provided construction administration and inspection services.

Natalie Harmon, NCIDQ®, LEED AP ID+C

Interior Designer

General Qualifications

Ms. Harmon has many years of interior design experience. She has provided interior design services for the U.S. Army Corps of Engineers, University of Pittsburgh, The Allegheny County Airport Authority, Connecticut Department of Transportation, Naval Facilities Engineering Command, The Department of Defense, Metro North Railroad, Duquesne Light Company, Dicks Sporting Goods, Washington Federal Bank, Heinz 57 Center, Fragrasso Financial Advisors, LA Fitness and PNC Bank. Types of projects include corporate facilities, commercial office design, maintenance facilities, training facilities, dormitories, food service facilities, commercial retail and education facilities. She has extensive knowledge of commercial furniture including workstations, deskings, tables, lounge seating, technology equipment and accessories. Ms. Harmon has experience with furniture and equipment procurement, sustainable design, space planning, ergonomics, signage, finishes and specifications. She is proficient in the use of AutoCAD Architecture (2007-2015), Adobe Photoshop and InDesign CS3, Revit Architecture (2009-2015), and Microsoft Professional Suite as well as SpecsInTact and MasterSpecs. She has designed, specified and procured furniture packages using Knoll, Steelcase, Kimball, KI, Lyon and UNICOR products. She has extensive experience with Knoll products including Equity, Calibre, Morrison, Dividends Horizon, Reff Profiles and Propeller as well as their Knoll Studio pieces. Ms. Harmon's career history with design build projects has built her communication skills and vast knowledge of interior constructions materials, resources and reference documents. She has experience on producing Requests for Proposals and Requests for Quotes which has advanced her understanding of projects from initiation to completion.

Years with Michael Baker: 6

Years with Other Firms: 4

Degrees

B.S., 2007, Interior Design, Art Institute of Pittsburgh

Licenses/Certifications

LEED Accredited Professional ID+C, 2008

National Council for Interior Design Qualification, 2012

Experience

09LRLD032 Riverdale MD DB RFP. *U.S. Army Corps of Engineers, Louisville District.* Interior Designer. Responsibilities included providing FF&E, signage and finishes selections, and packages. Also responsible for documenting the selection on construction drawings.

Combat Services Support Detachment Administration Building and Warehouse, Joint Expeditionary Base Little Creek, Fort Story, Virginia Beach, Virginia. *Leebcor Services, LLC.* Interior Designer. Responsibilities included providing FF&E, signage and finishes selections, and packages. Also responsible for documenting the selection on construction drawings.

J.J. Pickle Federal Building Renovations, Austin, Texas. *General Services Administration.* Interior Designer. Responsibilities included providing FF&E, signage and finishes selections, and packages. Also responsible for documenting the selection on construction drawings. Michael Baker is providing engineering services for building system renovations to the J.J. Pickle Federal Building. Michael Baker's services include mechanical, electrical, and plumbing design; exterior repairs; and space planning.

Program Management for New Haven Rail Yard Facilities Improvement, New Haven, Connecticut. *Connecticut Department of Transportation.* Interior Designer. Responsibilities included providing an FF&E procurement basis of design package based on the user's wants/needs. The facility included 125 workstations, 95 private offices, classrooms and training rooms, storage and filing, break room, cafeteria and dining room, labs, conference, multi-purpose rooms, team meeting spaces, lobby and waiting, lockers and shops. Responsibilities also included establishing furniture standards and meeting with specific department users to establish wants and needs. Michael Baker is providing program and construction management services to transform the existing New Haven Rail Yard into a state-of-the-art coordinated campus to serve the expanding Metro-North rail car fleet, enhancing Metro-North commuter rail service to New York City and supporting Connecticut's vision of improved rail and transit service into the 21st century. Michael Baker's tasks include developing federally mandated management plans; performing reviews of designer and contractor plans; providing support for project and program-wide schedule reviews and constructibility reviews; and performing interagency and railroad coordination, public outreach, and website development. Maintenance, administrative, and transportation facilities total 220,000 square-feet.

Armed Forces Reserve Center, McAlester, Oklahoma. *U.S. Army Corps of Engineers, Louisville District.* Designer. Responsibilities included providing FF&E and finishes selections and packages as well as documented the selection on construction drawings. Michael Baker was the designer of record for the new, design-build, 50,693-square-foot training center and a 25,504-square-foot organizational maintenance shop, providing state-of-the-art classrooms, offices, and maintenance and supply areas for 200 U.S. Army Reservists and Oklahoma Army National Guard soldiers. The complex has achieved Gold LEED® certification; sustainable features include high-efficiency mechanical systems, recycled content materials, low-VOC materials, and efficient site usage.

On-Call Planning and Environmental Services, Pittsburgh International, and Allegheny County Airports (PIT/AGC), Pittsburgh, Pennsylvania. *Allegheny County Airport Authority.* Designer. Responsible for assisting in conceptual design concepts/renderings. Since 1989, Michael Baker has provided on-call general services for both airports. In 2002, the client established a separate planning and environmental on-call contract for planning management and extension-of-staff assignments and selected Michael Baker to provide comprehensive, multidiscipline planning and environmental services. Michael Baker's tasks range from developing mapping to conducting environmental evaluations and preparing environmental documents and permit applications, to conducting a feasibility study for converting a cross-wind runway to a taxiway.

Army Reserve Center Training Center Addition and Building Alterations, Fort Wadsworth, Staten Island, New York. *U.S. Army Corps of Engineers, Louisville District.* Interior Designer. Responsibilities included providing FF&E and finishes selections and packages as well as documented the selection on construction drawings. Michael Baker served as the designer of record for the design-build delivery of a 3,200-square-foot addition and alterations totaling more than 50,000 square feet in four buildings at the installation. Michael Baker's services included project management, architecture, structural engineering, interior design, fire protection and life-safety systems design, and construction support services.

Woods Run Complex Building 3 Restroom Renovations, Pittsburgh, Pennsylvania. *Duquesne Light Company.* Interior Designer. Responsible for assisting in presentation renderings and CAD drawings. Michael Baker provided architectural and engineering design services for the renovation of restrooms on the first and second floors, a two-story infill addition with a restroom and storage area, and the replacement of the roof of Building Three of the Woods Run Complex. Michael Baker's services included the preparation of final design documents, bidding-phase support, and construction management.

David J. Hilliard, P.E., LEED® AP

Mechanical/Electrical/Plumbing Engineer

General Qualifications

Mr. Hilliard has a wide range of "hands on" design, engineering, and construction experience. From his beginnings as a carpenter he has expanded his professional abilities to a senior engineer for Baker. His recent design experience has included the design of new campus water lines and other service utilities at West Virginia State University, the complex mechanical design of such projects as a large Charleston, West Virginia hospital, a Bus Maintenance Garage and office building for the West Virginia Department of Transportation, an Army National Guard Armory HVAC/Electrical renovation, Master Planning and engineering at the West Virginia Capitol Complex including plumbing renovation design on the historic State Capitol Building. His resume covers over 30 years of real world work in engineering, design, fabrication and construction in the mechanical, electrical and general trades.

Over the years, while practicing his profession, Mr. Hilliard continued his education by studying mathematics, civil and mechanical engineering, finally taking degrees in both mathematics and mechanical engineering. He has continued his professional development through his involvement with ASME, ASHRAE, ASPE, USGBC, and other pertinent organizations

Experience

West Virginia State University - Open-End Architectural/Engineering Services, Institute, West Virginia. 10 year IDIQ. Mechanical/Electrical and Plumbing Designer and Engineer of Record for on demand projects at West Virginia State University. Some recent tasks have included programming, planning, design development, construction documentation, systems evaluations, and feasibility studies and cost estimating. Mapping, evaluation and design services for storm and sewer line systems, a campus wide domestic water loop system design, football field upgrades and overall facility maintenance support as requested by the University. He has also been involved with the development and acquisition of WVDEP permits for both MS4 and Air Perming.

Little Kanawha Bus, Calhoun County, West Virginia. WV Division of Public Transit. Mechanical Engineer. Responsible for the Mechanical, Electrical and Plumbing Design, MEP Document Preparation, and Construction Administration for a new bus maintenance and office facility for Gilmer County. Duties include the design of the vehicle storage, cleaning and maintenance mechanical systems, as well as oil pumping and collection systems. The design of an energy efficient HVAC system for the entire building is also part of his responsibilities. The facility was designed as a LEED® project.

Years with Michael Baker: 6

Years with Other Firms: 20

Degrees

B.S.M.E., 2005, Mechanical Engineering, West Virginia University Institute of Technology

B.S., 2002, Mathematics and Science, West Virginia State College

Licenses/Certifications

Professional Engineer, West Virginia 2011

LEED AP, bd+c, 2010

Professional Affiliations

American Society of Plumbing Engineers

American Society of Heating, Refrigerating, and Air-Conditioning Engineers

American Society of Mechanical Engineers

Good News Mountaineer Garage, Charleston, West Virginia. Mechanical Engineer. Responsible for the Mechanical, Electrical and Plumbing Design, MEP Document Preparation, and Construction Administration for newly renovated Auto Repair garage and administrative office facility for this non-profit organization. The Good News Mountaineer Garage accepts donations of vehicles that are repairable for a reasonable amount of money. These donated cars are then distributed to families with low incomes for transportation to work.

West Virginia State Capitol Restroom Renovations. *State of WV General Services Division.* Mechanical Electrical and Plumbing Engineer. Mr. Hilliard provided the State of West Virginia General Services Division a comprehensive MEP plan for the renovation and renovation of the 33 restrooms of the West Virginia State Capitol Building. He helped provide design, construction sequence, and scheduling recommendations. And will provide Construction Administration during construction

Army National Guard Headquarters Renovations, Charleston, West Virginia. *State Army National Guard Headquarters.* Mechanical Engineer. Responsible for all mechanical design oversight and construction management. Baker performed complete planning, design, and construction management services for renovations to the Office of the Adjutant General at the State Army National Guard Headquarters in Charleston, West Virginia. Project elements included a complete renovation and replacement of the HVAC system with a Loop Heat Pumps, new acoustical ceilings, flooring, energy-saving light fixtures, several new wall partitions, new interior doors and hardware, new wall finishes and asbestos removal. Baker provided Construction Administration and inspection services as well as periodic site review during construction.

Advanced Individual Training Barracks and Company Operations Facility, Fort Gordon, Richmond, Jefferson, McDuffie, and Columbia Counties, Georgia. *U.S. Army Corps of Engineers, Fort Worth District.* Mechanical Engineer. Responsible for exhaust & outdoor air system review and development. Baker served as the designer of record for the design-build for a new, design-build, 93,000-gross-square-foot advanced individual training barracks and a three-story training barracks that is designed to house 300 single soldier trainees. The facility is designed to meet achieve Gold LEED® rating. Baker's services included architectural, engineering, landscape, and interior design services.

Other pertinent experience

Heart and Vascular Center - CAMC Memorial Hospital, Kanawha City, West Virginia. Mechanical Engineer. Performed design calculations, layout of Plumbing, HVAC ductwork, piping and components for three floors of the Clinical Teaching Center; Lobby, Cath Labs and patient rooms. This work was all done in affiliation with BSA Life Structures

Fairmont State University, Student Activities Center; Fairmont West Virginia. For this project, Mr. Hilliard worked on the HVAC Design, coordination and construction of the student recreation center for Fairmont State. The HVAC systems included large packaged rooftop units with VAV zone control, a pool area with fabric duct system, locker room exhaust, exposed spiral ductwork in exercise and gym areas and a building smoke evacuation system.

Ashland Community and Technical College; Ashland, Kentucky. Mr. Hilliard worked on Design Evaluation and Coordination of the Medium Pressure VAV Mechanical System. He prepared shop drawings and coordination drawings. His duties also included Construction Administration.

Mountain State University School of Business and Applied Technologies; Beckley West Virginia. Mr. Hilliard worked on Design Evaluation and Coordination of the Mechanical System. He prepared shop drawings and coordinated construction.

Owen Milligan, P.E.

Electrical Engineering Manager

General Qualifications

Mr. Milligan is an electrical engineer who is experienced working with consulting engineering firms in the study and design of electric distribution and control systems, emergency power for process plants and facilities, water/wastewater treatment plants, government and commercial projects, ASHRAE energy-efficient building design, coordination with vendor and contractors, and approval of vendor drawings. He has a strong knowledge of distribution equipment and designs, motor control center layouts and design, and start-up and services during construction. He is capable of handling multiple projects from conception to final design, working as a team member toward meeting project goals. His work includes management of Baker's electrical engineering department, supervising and providing technical advice to designers and coordinating design and construction work with engineers, contractors, vendors, and clients.

Experience

Design/Build SATOC for Military Facilities in the Southwest Region, Various Locations in Southwestern U.S., AR,AZ, CA, LA, NM, NV, OK, TX. *U.S. Army Corps of Engineers, Tulsa District.* Electrical Engineer. Provided design assistance to the electrical engineering subconsultant, and performed a technical quality review of the construction documents for the TEMFs located at Fort Bliss. Electrical systems included lighting, lightning protection and grounding, power distribution, telecommunications, fire alarm, and unique voltage and frequency requirements. Designs were required to meet UFC and military design standards. Projects constructed under this contract include Brigade Combat Team (BCT) Tactical Equipment Maintenance Facilities (TEMF). TEMFs provide facilities for the purpose of maintaining and repairing vehicles, complete with equipment and parts storage, and administrative offices. Task orders awarded to date include the following: Two TEMFs at Fort Bliss in El Paso, Texas to be shared by five Battalions and one Company; and a Unit Operations Facilities consisting of a TEMF and an Organizational (Deployment) Storage facility, at Fort Bliss in El Paso, Texas. Facility designs are required to meet or exceed a Silver LEED® certification.

On-Call Multi-Discipline Services, Pittsburgh International, and Allegheny County Airports (PIT/AGC), Pittsburgh, Pennsylvania. *Allegheny County Airport Authority.* Technical Advisor. Provided technical direction to electrical design staff and performed a technical quality review of the construction documents. Designs were required to meet NEC standards. Since 1989, Baker has provided multidiscipline, on-call services to the Allegheny County Airport Authority (ACAA). The ACAA owns and operates Pittsburgh International Airport (PIT) and Allegheny County Airport (AGC). Baker acted as an extension to the ACAA's staff, providing the depth of resources and experience of the entire company when called upon by the ACAA. Baker provided a full range of services to ACAA on an "On-Call/As-Needed" basis, including architecture, civil, structural, mechanical, electrical and environmental engineering, general engineering administration, construction support, and other areas.

Years with Michael Baker: 7

Years with Other Firms: 20

Degrees

B.S., 1988, Electrical Engineering,
Gannon University

Computer Aided Drafting, Putnam
County Technical Center, 1995

Licenses/Certifications

Professional Engineer, California,
2003

Professional Engineer,
Pennsylvania, 1999

Professional Engineer, Montana,
2001

Professional Engineer, Kentucky,
2005

Professional Engineer, Oklahoma,
2008

Rescue Swimmer Training Facility, U.S. Coast Guard Support Center, Elizabeth City, North Carolina. *U.S. Coast Guard, Facilities Design & Construction Center Atlantic. QA/QC.* Performed a technical quality review of the electrical design for this building renovation project, including lighting and electrical receptacles. Baker prepared Design/Build RFP Documents for a new Rescue Swimmer Training Facility (RSTF) for the Aviation Technical Training Center (ATTC), a tenant of and located on the SC Elizabeth City, NC. The \$13.3 million RSTF is a dedicated aquatic trainer for the purpose of supporting the Aviation Survival Technician (AST) School and recurrent water survival training requirements. Sized appropriately for the curriculum and student loading, the RSTF contained elevated platforms, pool temperature controls, adequate wet and dry storage, male and female locker/shower facilities, classrooms, and office space.

Gymnasium Locker Room Rehabilitation, USCG Training Center Cape May, New Jersey. *U.S. Coast Guard. QA/QC.* Performed a technical quality review of the electrical design for this building renovation project, including lighting and electrical receptacles. Baker prepared the design, construction documents, and cost estimate for the interior rehabilitation of an existing facility to combine two women's locker rooms into one large room.

Relocation and improvements to the Front Gate, USCG Training Center Cape May, New Jersey. *U.S. Coast Guard. QA/QC.* Performed a technical quality review of the electrical design for this building renovation project, including lighting and electrical receptacles.

Route 52, Contract - "B", Somers Point & Ocean City, New Jersey. *New Jersey Department of Transportation.* Electrical Engineer. Responsible for the electrical systems design to meet NEC standards for a new Visitor's Center, bridge and site lighting, power distribution, and a supplemental photovoltaic solar system.

Non-Baker Project Experience

Siemens Government Services, Inc (formerly SD Engineers), Pittsburgh, Pennsylvania. Senior Electrical Project Engineer. Responsibilities included Senior Electrical Engineer in charge of all electrical work at the Department of Energy's Naval Reactor Facility in West Mifflin, Pennsylvania. Duties included complete electrical design including multiple new office building designs and construction, light industrial type facilities for confidential DOE projects, retrofitting and relocation of existing laboratories, power studies, arc flash calculations, and site power distribution.

Chester Engineers / US Filter Corporation, Pittsburgh, Pennsylvania. Electrical Project Engineer. Responsibilities included the following:

- Lead electrical engineer for multiple site water and wastewater treatment projects for a large automobile manufacturer.
- Lead electrical engineer for design of water treatment plants for several large steel manufacturers.
- Lead electrical engineer on design of numerous remote cellular telephone communication sites for a large, wireless Telecommunications Company.
- Assisted a Senior Electrical Engineer on a Short Circuit and Coordination Study using CAPTOR/DAPPER analysis program.
- Responsible for several large detailed constructions cost estimates.
- Lead Electrical Engineer to many local municipalities for wastewater and water pumping/filtration upgrades.

Wayne Airgood, P.E.

Structural Engineer

General Qualifications

Mr. Airgood is a practicing structural engineer with experience in the design of commercial, institutional, light industrial building structure, and foundation systems.

Experience

Design of Central Issue Facility, Fort McCoy, Wisconsin. *U.S. Army Corps of Engineers, Louisville District.* Mr. Airgood was the senior structural engineer of record responsible for design of the building structure and foundation systems from concept through construction of an approximate 62,553-square-foot large-sized Central Issue Facility (CIF) to expedite the shipping and receiving, distribution, processing, and exchange of soldier equipment. The structural system consisted of steel joist and girder framing supported by interior steel columns and exterior precast, insulated concrete load-bearing walls. Foundations were soil supported, isolated and continuous, reinforced spread footings.

Container-Loading Facility Design, Fort McCoy, Wisconsin. *U.S. Army Corps of Engineers, Louisville District.* Mr. Airgood was the senior structural engineer of record responsible for the design of a clear span steel roof framing system to achieve column-free interior warehouse space of a 30,862-square-foot Container-Loading Facility. Roof framing system is supported by interior steel columns and exterior precast, insulated concrete load-bearing walls. Foundations were soil supported, isolated and continuous, reinforced spread footings.

Montgomery County Public Schools Foodservices Facility. *Montgomery County, Department of General Services.* Mr. Airgood was the senior structural engineer of record responsible for the development and design of structural framing and foundation systems for 70,000-square-foot food production, warehouse and distribution facility. His responsibilities included coordination with owner/user and other engineering disciplines throughout design, performing and overseeing of production structural design calculations and documents and construction administration services such as review of structural product submittals and periodic site visits.

West Haven Commuter Rail Station Engineering Design, West Haven, Connecticut. *Connecticut Department of Transportation.* Mr. Airgood was the senior structural engineer responsible for the structural framing and foundation design of a two story passenger train station building. The station building featured a two story, glass curtain wall enclosed passenger waiting area with exposed to view curved roof structure. The design also included a 75 foot span, glass curtain wall enclosed pedestrian bridge spanning over the four rail line track bed to connect the station building with a new two story stair and elevator tower. His responsibilities included coordination with engineering and architectural disciplines during design, performing and overseeing of production structural design calculations and documents, and review of fabrication shop drawings and other construction administration services as related to the building structural systems.

Years with Michael Baker: 8

Years with Other Firms: 23

Degrees

B.S.C.E., 1984, Structural Engineering, Geneva College

Licenses/Certifications

Professional Engineer, Pennsylvania, 1999, [REDACTED]

Professional Engineer, Maryland, 2013, [REDACTED]

Professional Engineer, North Carolina, 2014, [REDACTED]

Penn Hills Operations Center Addition, Penn Hills, Pennsylvania. *Duquesne Light Company.* Mr. Airgood was the senior structural engineer of record responsible for the development, design, and detailing of a load bearing masonry wall and steel framing addition to an existing facility.

Design-Build Tactical Equipment Maintenance Facilities, 31st ADA Brigade, Fort Sill, Oklahoma. *U.S. Army Corps of Engineers, Tulsa District.* Mr. Airgood was the senior structural engineer responsible for the design of the foundation systems to support an 18,000-square-foot, 35,200-square-foot, and 57,031-square-foot pre-engineered steel Tactical Equipment Maintenance Facilities (TEMF), and a 20,000-square-foot Supply Support Activity facility supply support activity warehouse (SSA). Because of existing expansive soil conditions, the ground floors of each building were designed as reinforced concrete floor systems with a void space between the expansive soil and floors. The concrete floor system and PEMB structural columns were supported by a deep foundation system of drilled concrete piers extending to rock. His responsibilities included review of structural fabrication drawings, attending design coordination meetings and periodic site visits during construction.

Buildings 200 & 250 of Imperial Business Park, Imperial, Pennsylvania. Mr. Airgood was the lead structural engineer responsible for the development and design of the structure and foundation systems for two, 250,000-square-foot warehouse facilities. Responsibilities also included construction administration services such as review of structural product submittals and periodic site visits. Each building consisted of steel joist and joist girder roof framing supported by interior steel columns and exterior precast concrete bearing and shear walls. Foundations were soil supported, isolated and continuous, reinforced spread footings.

ABB Manufacturing and Office Facility, Mt. Pleasant, Pennsylvania. Mr. Airgood was the lead structural engineer of a high-bay manufacturing, testing and warehouse facility for electric transformer equipment, including an attached two-story office area. The structural systems consisted of precast concrete wall panels enclosing a steel framed interior column and roof structure, including the support of numerous under-hung crane systems throughout the facility ranging from 5- to 20-ton capacities. The lateral framing system was a combination of steel braced and moment frames, and foundations were soil supported isolated and continuous, reinforced spread footings.

Fuel Cell Facility, Pittsburgh, Pennsylvania. *Siemens Westinghouse.* Mr. Airgood was the lead structural engineer of a high-bay manufacturing facility, warehouse and two-story attached office area. The structural systems consisted of precast concrete wall panels enclosing a steel framed interior column and roof structure. The lateral framing system was a combination of steel braced and moment frames, and the structural design included support of various top running bridge crane systems ranging from 10- to 40-ton capacities. The foundations were soil supported isolated and continuous, reinforced spread footings.

John D. Lasko, P.G.

Senior Geologist

General Qualifications

Mr. Lasko's background encompasses a variety of geotechnical projects. His experience includes project task management, test boring layout, drilling inspection, geotechnical interpretation of subsurface geology, construction inspection and related project field work.

Experience

Rehabilitation of Five Pennsylvania Dams, Various Locations, Pennsylvania. *Pennsylvania Department of General Services.* Senior Geologist. Responsibilities included: test boring inspection, drilling contractor coordination, lab testing coordination, lab testing requisitions, boring contract administration, boring contract quantity tracking, subsurface findings interpretation, geologic literature review, and report writing. Michael Baker is providing engineering services for the rehabilitation of the Kyle Lake, Canonsburg Lake, Dutch Fork Lake, Donegal Lake, and Somerset Lake dams, which are owned by the Pennsylvania Fish and Boat Commission, to ensure compliance with Pennsylvania Department of Environmental Protection regulations. Michael Baker's tasks include reviewing drawings and reports; field-inspecting all elements, including spillways and gatehouses; performing hydrologic and hydraulic analyses; performing topographical surveys and geotechnical investigations to evaluate current conditions; identifying and analyzing rehabilitation alternatives; and providing construction management services. Designs included spillway replacements, outlet work modifications, overtopping protection, and post tensioned rock anchors.

Mon River Bridge, Pittsburgh, Pennsylvania. *Port Authority of Allegheny County.* Senior Geologist. Responsible for performance of field and office coordination during subsurface investigation. Michael Baker performed an environmental assessment, preliminary design, and final design for a new bridge to cross the Monongahela River in Pittsburgh, Pennsylvania. Numerous location and structural alternatives were considered. The recommended alternative was a single span steel basket handle arch.

Research and Development Facility, Institute for Scientific Research, Fairmont, West Virginia. *BE & K Building Group.* Senior Geologist. Responsible for providing site reconnaissance, geologic interpretation and cut slope design recommendations. Using a design-build delivery method, a new 263,000-square-foot, five-story Research and Development Facility was constructed for The Institute for Scientific Research (ISR). The facility was outfitted with advanced technology features and amenities that included: distance learning centers; voice/data systems; two-story exhibit hall; heavy research floor with high bay area; prototype workshop and 10-ton crane; fitness center; and full-service kitchen/restaurant. In addition to the environmentally sensitive design features, a number of unique energy-efficient strategies were used to accomplish LEED® certification.

Years with Michael Baker: 27

Years with Other Firms: 2

Degrees

M.S., 1989, Earth Science and Geology, California University of Pennsylvania

B.S., 1985, Geology, Juniata College

Coursework, 0, General Arts and Sciences, Saint Vincent College

Coursework, 0, Geotechnical Engineering, Geneva College

Licenses/Certifications

Professional Geologist, Pennsylvania, 1995, [REDACTED]

14.21 Geotechnical Testing, Pennsylvania

14.11 Soil Exploration, Pennsylvania

PennDOT Inspector, Level 1, Pennsylvania, 1999, 99-2-029

PennDOT Inspector, Level 2, Pennsylvania, 1999, 99-2-029

NS Roadway Worker Protection Certification, 2015

Site Preparation and Improvements for North Fayette Township Community Park, Allegheny County, Pennsylvania. North Fayette Township. Senior Geologist. Responsible for providing geotechnical field services for landslides along township roads. Provided recommendations, alternatives and cost estimates to repair. Michael Baker, as a subcontractor, was responsible for the development of grading plans, stormwater management, site permitting, surveying, and utility design for a 34-acre park located off Donaldson Road. The project included three baseball fields sized for Little League play, a lighted soccer field, and a football field. Other amenities included an amphitheater, concession stand, pavilions, a 1.1-mile walking trail, and restroom facilities. Michael Baker designed roadways, parking facilities, potable water, electrical, and sanitary and storm sewers, and developed a complex stormwater management and E&S plan. Michael Baker also performed design and pre-construction surveying of the site.

Outside Plant Maintenance, Maryland, Virginia, and West Virginia, Washington, D.C. AT&T Corp. Geologist. Responsible for providing recommendations and cost estimates for cable river crossings. Michael Baker provided the knowledge and expertise needed to address the range of issues associated with on-going cable facility upgrades and rearrangements. A considerable number of existing cable facility upgrades and rearrangements are necessary in the continually growing urbanized areas located throughout the Northeastern part of the United States, specifically Maryland, Virginia, West Virginia, and Washington, D.C.

Brush Run Stream Restoration, Washington County, Pennsylvania. Eighty Four Mining Company. Senior Geologist. Responsible for providing construction services for soil amendment verification for stream restoration project, including review of contractors' mixing methods and materials, and conducting soil sampling and laboratory testing coordination for sample permeability and compaction verification. Michael Baker provided construction oversight for the restoration of Brush Run Stream. Michael Baker's services included daily contractor monitoring, quality assurance, quality control testing, project scheduling for the installation of a stable stream channel and channel liner. This project mitigated the effects of stream flow loss due to mine subsidence by incorporating a bentonite clay channel liner to prevent infiltration of runoff into the bedrock strata, and implemented natural channel design to establish a stable stream geometry and improve biological habitat.

Presentations

Landsliding in Pennsylvania J.V. Hamel. 46th Highway Geology Symposium, Charleston, West Virginia. Substitute presenter for J.V. Hamel (who could not attend), May 15, 1995.

Publications

Rock Slope Risk Assessment, Pittsburgh Airport Busway. James V. Hamel (GTECH, Inc., Pittsburgh, PA), Gordon M. Elliott (Consulting Engineer, Wexford, PA), John D. Lasko (Michael Baker, Beaver, PA), Chris A. Ruppen (Michael Baker, Beaver, PA). Published in *The Proceedings for the Second International Conference on Environmental Management (ICEM2)*, February, 1998, Wollongong, Australia.

J. Steve Frazer, P.S.

Surveyor/Civil Associate

General Qualifications

Mr. Frazer is currently employed as a Civil Associate and Surveyor at the Charleston, West Virginia office. Mr. Frazer has over 26 years of diverse surveying experience that includes geomatics, topographic, aerial mapping control, research, boundary, right of way, construction stake-out, site development, volumetric, pipeline and forensic surveys.

Experience

Sidewalk and Streetscape Improvements Projects, West Virginia.

Various Locations. Professional Surveyor/Crew Chief. Coordinated and executed the development of base mapping, project control, utility location, right of way and property boundary, construction stakeout and monitoring.

Notable locations include:

Town of West Milford	City of Winfield
Town of Mason	City of Madison
Town of Parsons	City of Nitro

Mart Whitt Branch Property Survey, Elliott County, Kentucky. *Kentucky Department of Fish and Wildlife Resources.* Project Surveyor. Provided complete services for a 400 Acre Boundary Survey. Services included field surveying, courthouse research, final monumentation and assessment of the Title Commitment for the subject property.

Various Projects. *NiSource Corporate Services Company.* Project Surveyor.

- Gas Pipeline Survey and Mapping, Kentucky. Responsibilities included determining survey methods, cost estimates, survey coordination, and gathering and processing survey data.
- NiS Kentucky ILI Site Survey. Responsibilities included coordinating survey efforts for forensic investigation, gathering and processing survey data, preparing deliverables, and client relations.
- CPG – PM3 and NiS Phase II - Clendenin Cobb. Responsibilities included coordinating survey efforts, gathering and processing of survey data, preparing deliverables, and client relations.
- NiSource - PM-17 Line and SM80 ILI Surveys. Responsibilities included gathering and processing field data, survey coordination, and client and contractor relations.
- CPG – Clendenin Cobb. Responsibilities included coordinating survey efforts, gathering and processing of survey data, preparing deliverables, and client relations.

Years with Michael Baker: 4

Years with Other Firms: 22

Degrees

A.S., 1984, Civil Eng. Technology,
West Virginia Institute of
Technology

B.S., 1986, Civil Eng. Technology,
West Virginia Institute of
Technology

Licenses/Certifications

Professional Surveyor, West
Virginia, 1996



APPENDIX 2 – Project Profiles

Texas Chenier Plain Headquarters and Visitor Center Design Services *Chambers County, Texas*

Michael Baker provided architecture and engineering design services for the Texas Chenier Plain Headquarters and Visitor Center, an administrative office, and interpretive learning center for the Anahuac National Wildlife Refuge.

The 9,171-square-foot headquarters offices serve the U.S. Fish and Wildlife staff on site. The 5,212-square-foot visitor center is connected to the administration side of the building via an open 1,787-square-foot breezeway. The visitor center side of the building is open to the public with interactive exhibits, an object theater, an environmental education classroom, and a bookstore. Outdoor trails lead from the classroom to an outdoor learning pond and boardwalk that extends from the pond through the cypress tree canopy to the shore of Lake Anahuac. Interpretive wildlife stations and lookout points are located along the boardwalk as well as additional trails originating at the visitor center.

The entire facility was designed to withstand a hurricane event occurring on the Gulf Coast of Texas. Sustainable design and the LEED® process were used throughout the design and construction of the facility to earn a LEED® Gold rating. The entire facility provides a unity of color, materials, and massing that is compatible with the site and is functional, sustainable, and easily maintained and provides a pleasing environment for visitors and employees alike.

Client

US Fish & Wildlife
P.O. Box 1306
500 Gold SW, Room 5108
Albuquerque, New Mexico 87103-1306

Completion Date

2011

Michael Baker's Role

- Architecture
- LEED® Gold rating



Lodge Complex Development

***Stonewall Jackson Lake State Park Resort,
Roanoke, West Virginia***

Baker provided scheduling and quality control under a construction management service agreement for the construction of a new Lodge Complex at Stonewall Jackson Lake State Park in Roanoke, West Virginia. The 158,000-square-foot Lodge and Conference Center consists of four three-story wings and 196 guest rooms. The facility is constructed on over 10 acres of scenic park property overlooking a 2,650-acre lake, nature trails, and adjoining premiere 18-hole golf course.

The Lodge and Conference Center is constructed of natural stone, cast-in-place concrete, structural precast concrete, concrete masonry, structural steel, metal decking, synthetic plaster, fiber-cement siding, standing seam roofing, insulated single-ply roofing, skylights, coiling shutter doors, wood doors, and aluminum store-front windows and curtain wall. Sitework included all new infrastructure, including electrical service from a newly constructed substation, and an HVAC system using electric heat pump and exchangers.

Baker also performed design reviews on the electrical and mechanical systems.

Client

McCabe Henley Durbin
KB&T Center, Suite 300
107 Capitol Street
Charleston, WV 25301

Completion Date

2003

Michael Baker's Role

- Construction Management
- Scheduling
- Quality Control
- Electrical/Mechanical Systems Design Review



Savannas Preserve State Park Education Center and Halpatiokee Canoe Launch Restroom Design

Port St. Lucie, Florida

Michael Baker provided architectural, structural, mechanical, electrical, and plumbing design services for the Savannas Preserve State Park Education Center and Halpatiokee Canoe Launch Restrooms.

Education Center and Deck Extension

The proposed Education Center project is an addition to the existing Visitors Center. Built in 2000, the Visitors/Cultural Center is a wood structure (walls and roof) elevated approximately 22 inches above the finished grade. The foundation consists of wood floor joists supported by concrete piers with a continuous spread footing at the exterior wall. The building is surrounded by an open veranda on all sides, and the exterior is a "Florida" vernacular design theme with lap siding and a standing seam metal roof. The Education Center will consist of approximately 3,050 square feet of enclosed space surrounded by 2,030 square feet of veranda space with a handicap accessible ramp to the north. The proposed deck extension will be approximately 1,035 square and is an extension of the existing surrounding Visitors/Cultural Center veranda to the east.

The interior enclosed space of the Education Center will consist of three areas: the learning center, a lab, and an office/audio-visual (AV) room. Michael Baker designed the Education Center adopting many of the features of the existing Visitors/Cultural Center, including window types, lap siding, roof system, door types, structural system, surrounding veranda and perimeter wood railing system. The interior space includes a vaulted ceiling and a motorized drop-down projector screen for training presentations.

The structural system of the Visitors/Cultural Center is also duplicated in the proposed Education Center and deck extension. The exterior wall of the enclosed space is supported on a stem wall and concrete spread footing with intermediate concrete filled cells. The structural floor is supported by LVL laminated floor joists spanning between intermediate concrete piers, in-filled by 2x structural lumber. The surrounding veranda and deck extension is supported by wood framing, and the decking material is a UV-resistant plastic composite. The roof system is supported by pre-engineered wood scissor trusses, plywood sheathing, and standing seam metal roof.

The mechanical system will include a new exterior pad-mounted condensing unit and a horizontal air handling unit suspended from the roof structure located above the ceiling space of the office/AV room. An exposed double-walled circular duct will be routed running west to east with intermediate diffusers or ductwork and diffusers directed north and south.

Client

Florida Park Service and City of
Port St. Lucie
121 SW Port St. Lucie Blvd.
Port St. Lucie, Florida 34984

Completion Date

2016

Michael Baker's Role

- Structural engineering
- Mechanical design
- Electrical design
- Plumbing design

The plumbing system will provide domestic hot and cold water supplies to the (4) new sinks located in the lab. Hot water will be provided by an under-counter electric hot water heater. The sanitary waste will be collected below the finished floor and feed into the existing underground sanitary waste line.

Electrical service will be provided by a new electrical panel located in the office/AV room. Since the roof structure is made up of scissor trusses, the light fixtures will be pendant-type lights suspended from the ceiling. Floor receptacles will be located within the Learning Center and lab for user activities along with interior typical duplex receptacles mounted at intermediate points around the building perimeter and GFCI above-counter receptacles between each sink in the lab area. The new Education Center addition will require the relocation of the existing condensing air-cooled heat pump units that serve the existing Visitors/Cultural Center.

Halpatiokee Canoe Launch Restrooms

The proposed canoe launch restrooms are based on a design prototype previously approved by the Florida Parks Service. The floor will be an exposed/sealed concrete-slab-on-grade. The interior and exterior walls will be masonry with stone veneer at the base and horizontal-lap-siding cementitious board above. The roof system will be supported by pre-engineered wood trusses, plywood sheathing, and a standing seam metal roof. The roof system will be extended to provide cover at the entrance to both restrooms.

The restroom facility will not be air-conditioned due to its remote and transient location. Natural ventilation will be provided via two louvers in each restroom.

The plumbing system will provide domestic cold water supply to the men's and women's restrooms, the utility sink, and the hi-lo drinking fountain. The plumbing fixtures within the facility will be handicap accessible. Sanitary waste will be collected below grade and tied into the sanitary system brought to the building. The domestic cold water supply will also be brought to the building as part of the site work.

The electrical system will consist of lighting within each restroom, the utility room, exterior lighting at the accessible exterior areas, and power to the hi-lo drinking fountain.

Value-Added

The design phase was expedited by using the existing Visitors/Cultural Center's design palette. Building codes changed requiring greater wind resistant materials, so Michael Baker worked with the contractor to find alternative windows, doors, and roofing materials to match the existing building and meet the new wind load criteria.

Little Kanawha Bus Administrative and Maintenance Facility

Grantsville, West Virginia

Baker provided general Architectural and Engineering services to the West Virginia Division of Public Transit for the Little Kanawha Administrative/Maintenance Facility located in Grantsville, West Virginia.

The WV Division of Public Transit selected Baker to provide complete design and construction administration services to include the construction of a pre-engineered metal and brick building, sited on the available property allowing for future expansion needs. Parking for the buses and employee vehicles will surround the building. The site is approximately 4.55 acres.

The operations facility has approximately 10,000 square feet of which 4,500 square feet houses five offices, a conference room, and money counting room, office storage space, copier and supply room, and a driver training room that accommodates approximately 25 individuals. The remaining 5,500 square feet is dedicated to the maintenance functions and includes a Wash Water Reclaim System. The building is provided with selective stand-by electrical power from a 50 KW natural gas generator with an automatic switch gear system.

The garage structural roof the overall eave height will be about 18 feet. This area also includes space for indoor bus storage for approximately seven (7) vehicles. The building is designed so that the vehicles can pull through the facility. The building was designed to employ green building practices, but was not LEED (Leadership in Energy & Environmental Design) Certified.

Client

State of West Virginia
Department of Transportation
Division of Public transit
Building 5, Room 906
1900 Kanawha Blvd., East
Charleston, WV 25305-0432

Completion Date

2013

Michael Baker's Role

- Architecture
- Renovation design
- Feasibility studies
- Cost estimates
- Civil engineering
- Surveying
- MEP engineering
- Structural engineering
- Environmental Permitting



Lincoln County Courthouse Annex

Hamlin, West Virginia

Baker provided architectural and mechanical/electrical design services for a proposed annex for the Lincoln County Commission. The project included planning, programming and the development of construction plans and bid specifications for the construction of a new single-story Commissioners' Annex. The facility will house offices for the Commissioners, chambers, and a hearing room. Additionally, the facility will include an electronic voting station and a storage area for the County's voting machines.

Due to the diversity of proposed occupants, the facility required three HVAC systems to ensure individual control and comfort of the users. By utilizing three separate systems, there is greater opportunity to share energy produced by the office equipment by occupants during off peak hours while the other areas are occupied less frequently.

The project also included humidity control, energy-saving light fixtures and a communications system design.

Currently, the Client is awaiting additional funding to proceed with the construction phase.

Client

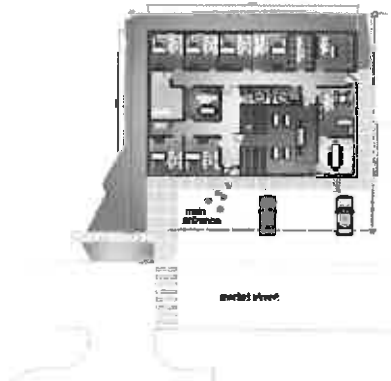
Lincoln County Commission
Post Office Box 497
Hamlin, WV 25523

Completion Date

2010

Michael Baker's Role

- Planning
- Programming
- Architecture
- Mechanical Engineering
- Electrical Engineering
- Design Charrette
- Preliminary Design Report
- Bidding Assistance
- Construction Phase Services



Good News Mountaineer Garage Administrative and Maintenance Facility

Charleston, WV

Baker provided general Architectural and Engineering services to the Good News Mountaineer Garage (GNMG). The facility is located on the west side of Charleston, West Virginia. The Good News Mountaineer Garage is a nonprofit organization that accepts donations of vehicles that are repairable for a reasonable amount of money. After repair, these donated cars are then distributed to low-income families needing dependable transportation.

The GNMG selected Baker to provide complete design and construction administration services in three phases. The first phase was to renovate the interior of the building on 4th Avenue in order to provide facilities for the automobile repair and administrative staff. Phase II included the build-out of a show room and Phase III was dedicated to the exterior of the building including vehicle storage and special event areas. Parking for some repaired vehicles and employee vehicles was provided east side of the building. The site is approximately 0.75 acres. The main facility has approximately 7,500 square feet of space of which 4,700 square feet, houses four administrative offices, a board room, a copier/supply room, restrooms and a large show room /event center which can accommodate up to approximately 75 individuals. The remaining 2,100 square feet is dedicated to the automotive repair functions. The garage includes two new vehicle lifts and overhead parts storage. The building was designed so that the vehicles can pull through the garage while the lifts are being used. Baker incorporated green building practices, including passive solar tube lighting in the showroom and maintenance garage. LED lighting was also used in order to help control utility costs for the operation of the facility.



Client

Good News Mountaineer Garage
1637 4th Avenue
Charleston, WV 25387

Ms. Asley Orr,
Executive Director
304-344-8445

Completion Date

March, 2016

Michael Baker's Role

- Architecture
- Civil Engineering
- MEP Engineering
- Landscape architecture
- Structural Engineering
- Bid Phase Services
- Construction Management
- Estimating



Open-End A/E Services

West Virginia State University

Institute, West Virginia

Baker was retained by the West Virginia State University (WVSU) under an Open-End Architectural and Engineering contract to perform renovations, alterations, reconstruction and/or extensions of existing facilities. Baker's specific tasks include programming, planning, design development, construction documentation, evaluations, feasibility studies, cost estimating and construction contract administration services.

The following is a summary of some of our experiences:

East Hall Renovations

East Hall is a historic facility housing faculty administrative functions for the University. In the last several years, the original wood siding and window units have begun to show signs of age deterioration. Baker prepared a scope of work and construction cost opinion for the replacement of the siding and windows as well as the design of a new ADA-compliant entrance ramp.

Ferrell Hall Entrance Improvements

Ferrell Hall is the primary administrative facility for the University. Baker prepared a scope of work and construction cost opinion for upgrades to both entry/egress points on the west end of the facility. The work included ADA-compliant walkways, stairs and railing, upgrades to the existing wheelchair ramp, a decorative retaining wall and landscape improvements.

Dawson Hall Humidity Assessment

Dawson Hall is a women's dormitory on the University Campus. Baker prepared a scope of work for an investigation of the air flow/ventilation and building envelop. Once the investigation is complete, a report will be prepared outlining recommendations for improvements to the ventilation and insulation within the individual dorm rooms.

Hamblin Hall Water Line Location

Hamblin Hall serves as the University's Science Building. The main 12" water line serving the campus runs under the facility and through the adjacent vacant lot. Baker was engaged to locate the line and associated shut-off

Client

West Virginia State University
124 Ferrell Hall
Institute, WV 25112

Ms. Janis Bennett
Director of Purchasing
304-766-3010

Completion Date

10-Year IDIQ ending 2021

Michael Baker's Role

- Architecture
- Civil Engineering
- MEP Engineering
- Cost Estimating



valve which was inadvertently buried during fill operations circa 1985. Civil services involved the examination of old campus mapping, a site survey, and coordination with a contractor to perform test-hole excavation.

Storm Drain Assessment and Repair

A study was completed of 72" storm drain system, 42" storm drain system and various combined sewer and storm drains on campus. Camera crews videoed selected pipe sections from the outfalls back to manholes and beyond.



A Deeply buried 72" CMP (Corrugated Metal Pipe) and damaged existing RCP (Reinforced Concrete Pipe) needed replacement with new RCP, the project was designed and constructed after an extensive study to determine the extents of the damage.



Also the 42" storm system from State Route 25 on the east side of campus that combine at a drop inlet (DI) east of the Hamblin Hall parking area an on to Dubois Street was evaluated for damage. Recommendations and estimates were provided to the university.

The 18" VCP (Vitrified Clay Pipe) main sewer line serving the campus saw evaluated for damage due to the presents of sinkhole forming behind the baseball field. . Old drawings indicate that this pipe extends from Athletics Drive south to a lift station east of the football field is a "combined sanitary and storm sewer". Recommendations and estimates provided to the University for the upgrade of this line.

Campus Main Water Loop Assessment and Design

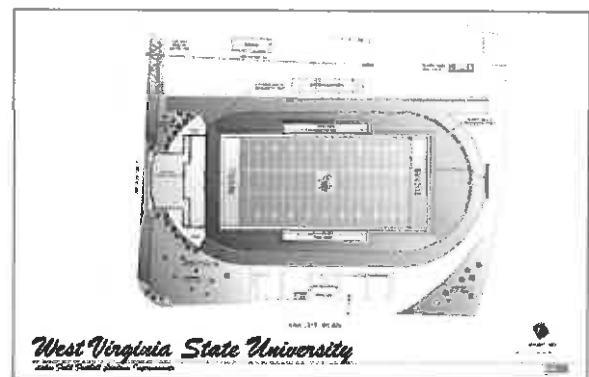
Baker is in the process of mapping valves, meters and fire hydrants in and around the main core campus in preparation for new district water piping.



A new 10" branch network system for the main campus is currently in the planning stages, including a new secondary service connection from Barron Drive. This will back-feed the main water piping system. The new main water service will be a single line through the center of campus to replace the existing loop.

Lakin Field Football Stadium Improvements

WVSU's Lakin Field serves the University's Football Program and is currently in need of upgrades. The field has a natural turf field with an oval track surrounding it, and drainage structures in the area which are aging and need upgrading. The University requested that Baker assist them with upgrades to the football stadium for upgrades to the football field and drainage at the field. Baker's civil services included a topographical survey of the area including the drainage structures in the football field area. We also prepared an analysis of the conditions and proposal with costs of upgrading the field to an artificial turf field, addition of an ornamental fence, a new scoreboard with video display, new goal posts, ticket booths, and upgrades to the existing drainage. Baker additionally prepared a preliminary cost analysis of the work for fund raising.





APPENDIX 3 – References

Each of the Project Profiles found in Appendix 2 lists Michael Baker's client and contact information for your use as a reference. Additionally, we offer the following diverse list of past or current clients and contact information:

- **West Virginia Department of Natural Resources**
District 5, 4300 1st Avenue
Nitro, WV 25143
Officer Mark DeBord, (formerly Major, WVSP)
(304) 759-0703
- **130th Airlift Wing West Virginia Air National Guard**
1679 Coonskin Drive, Unit 18
Charleston, WV 25311-5005
Captain Harry Netzer, P.E., Deputy Base Civil Engineer
(304) 341-6649
- **West Virginia State University**
P.O. Box 1000
Institute, WV 25112-1000
Mr. Marvin Smith, Facilities Director
(304) 550-2839
- **West Virginia Department of Transportation – Division of Highways**
1900 Kanawha Boulevard East,
Building 5, Room A-109
Charleston, WV 25305
Mr. Ryan Burns, Grant Administration Project Manager
(304) 558-3304
- **City of Nitro**
2009 20th Street
Nitro, WV 25143
Honorable David Casebolt, Mayor
(304) 419-3322
- **City of Winfield**
1 Main Street
Winfield, WV 25213
Honorable Randy Barrett, Mayor
(304) 586-2122
- **West Virginia Army National Guard**
1707 Coonskin Drive
Charleston, WV 25311-1099
Mr. Joe McClung, Project Manager
(304) 561-6548